09/727,897

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JUN 23 2005
PATENT & TRADEMARK OFFICE

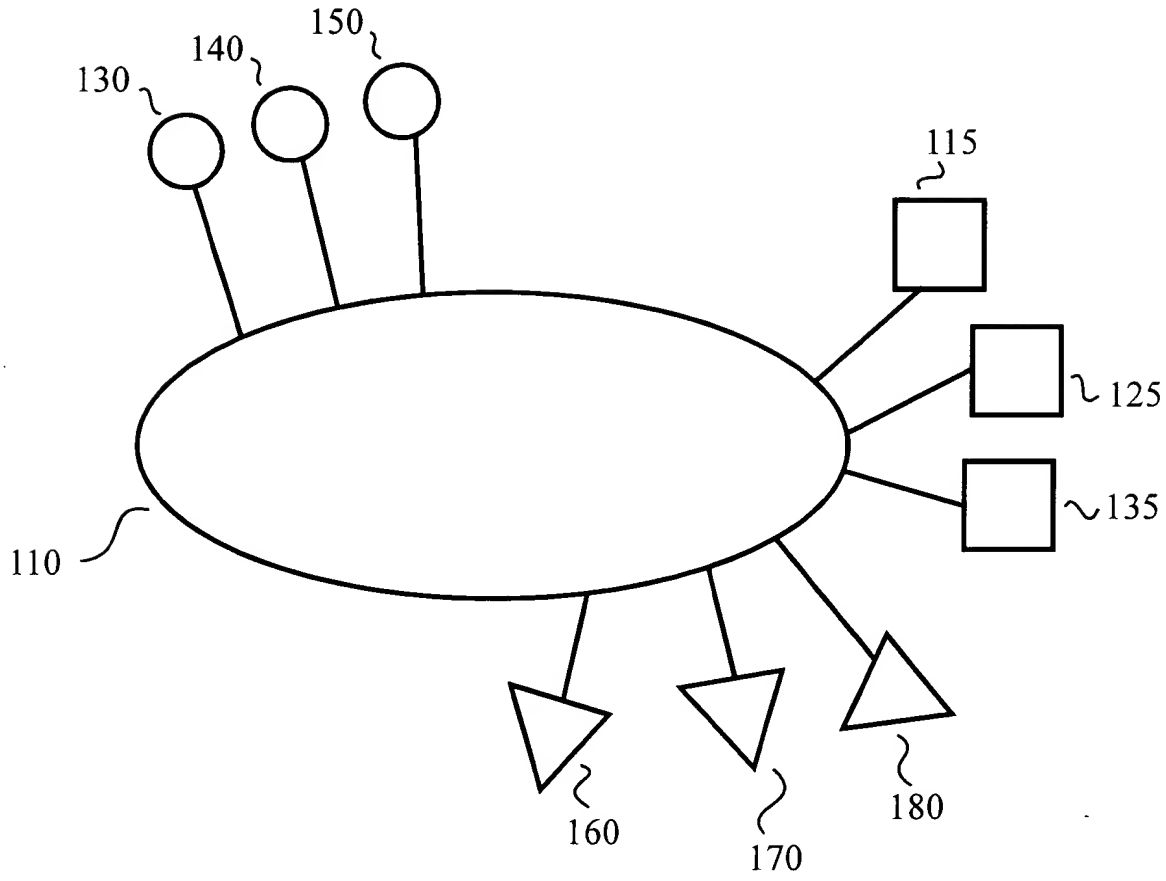

Figure 1

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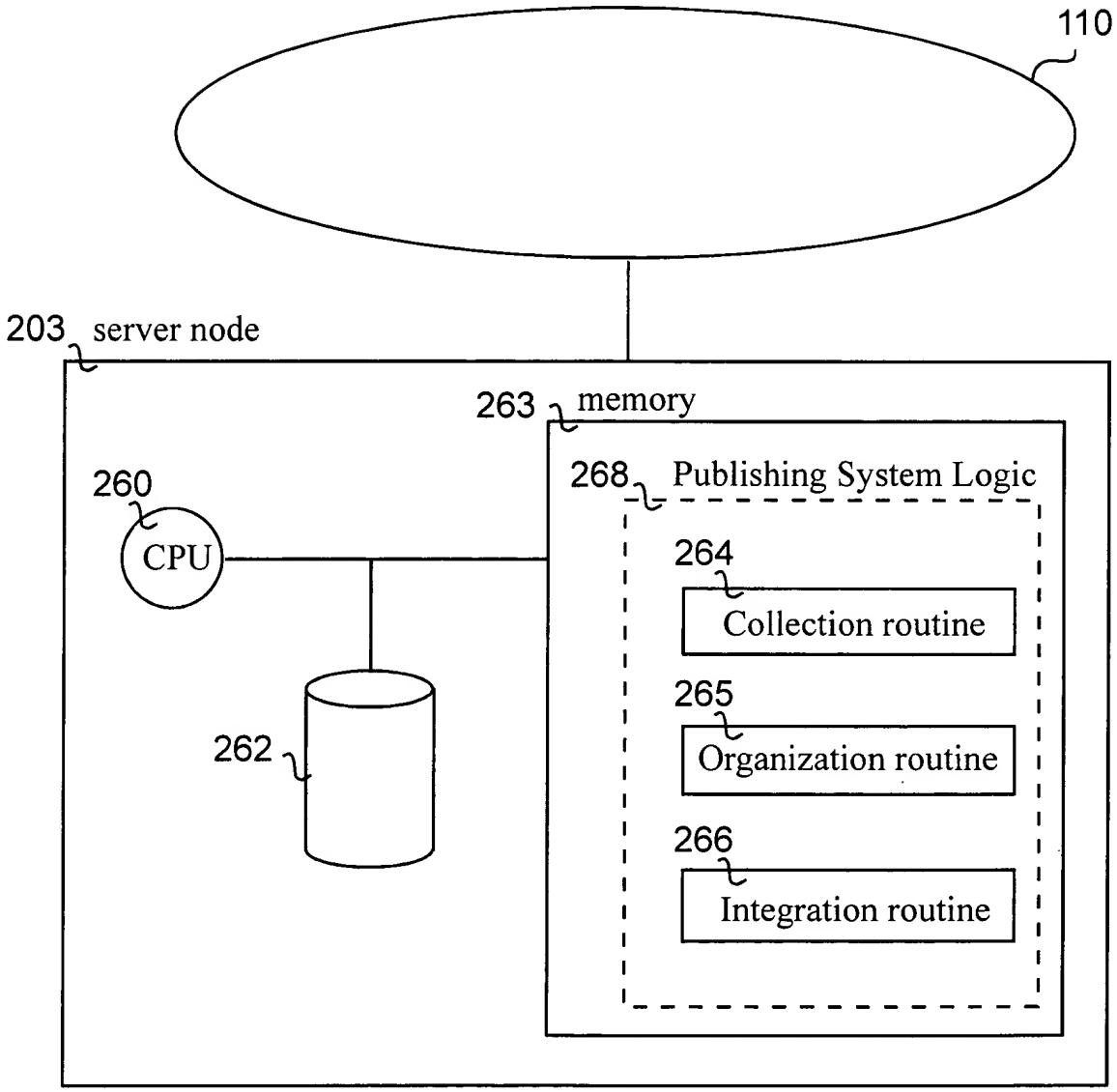

Figure 2

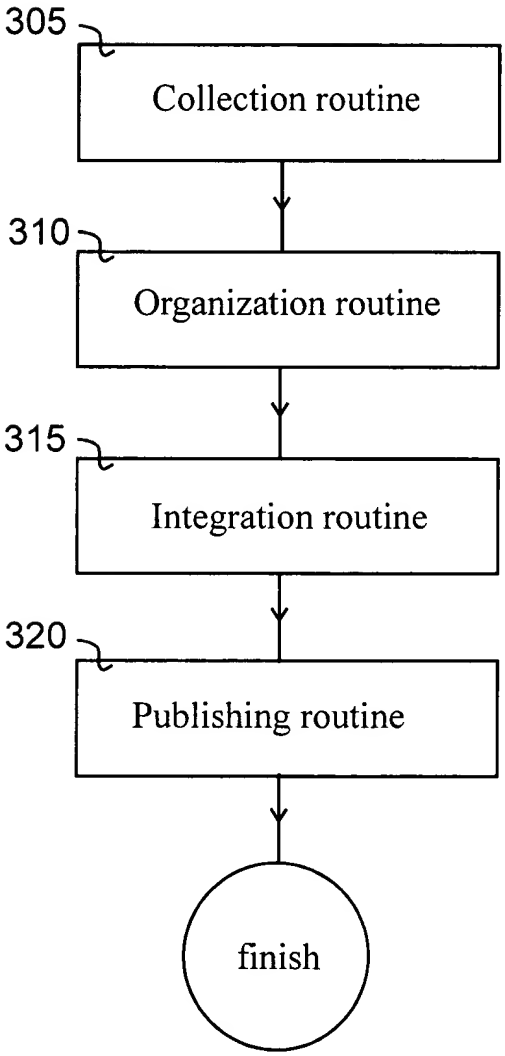
305
Collection routine
310
Organization routine
315
Integration routine
320
Publishing routine
finish

Figure 3

Collection routine

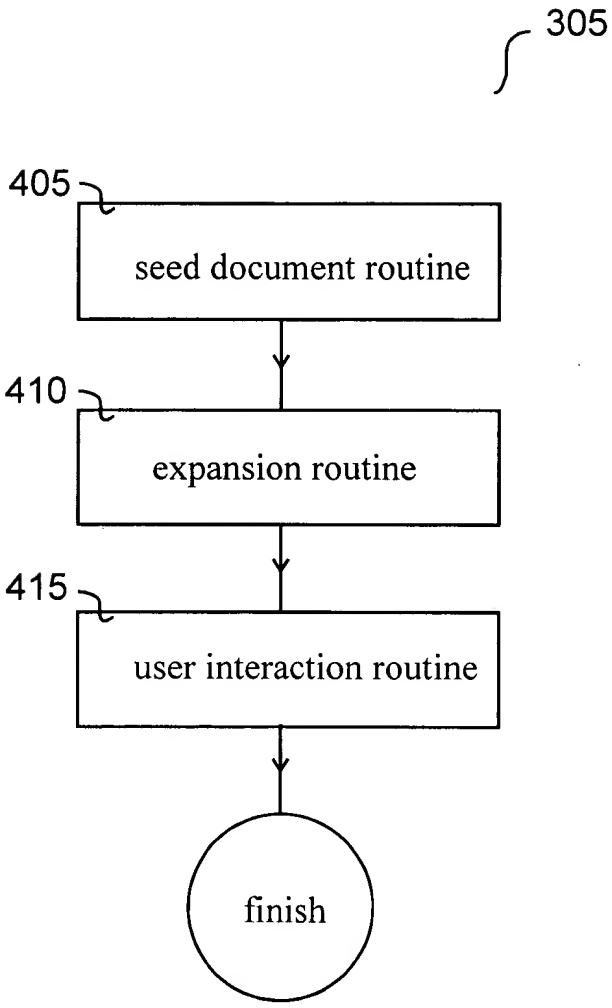

Figure 4

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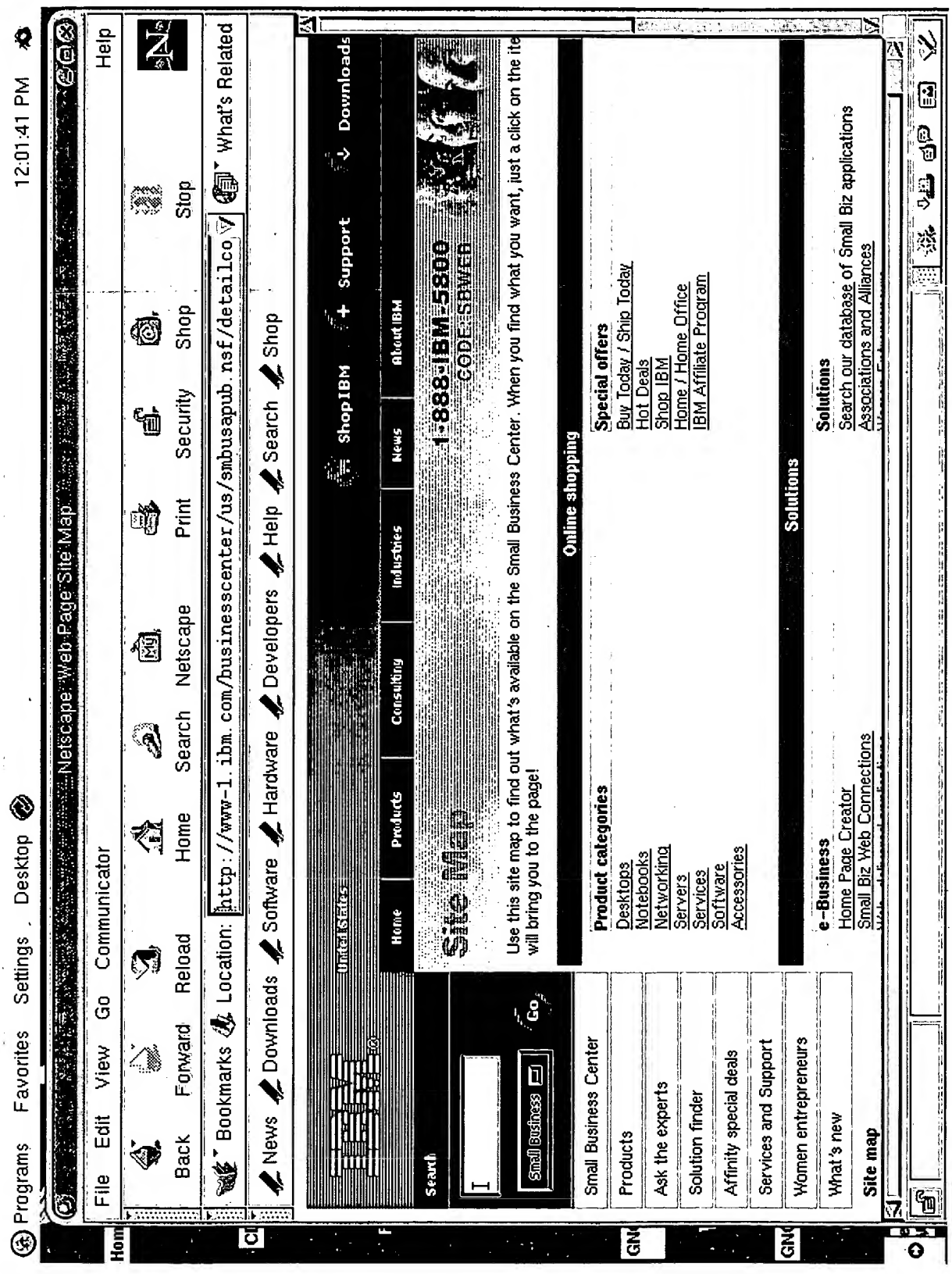

Figure 5

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Organization routine

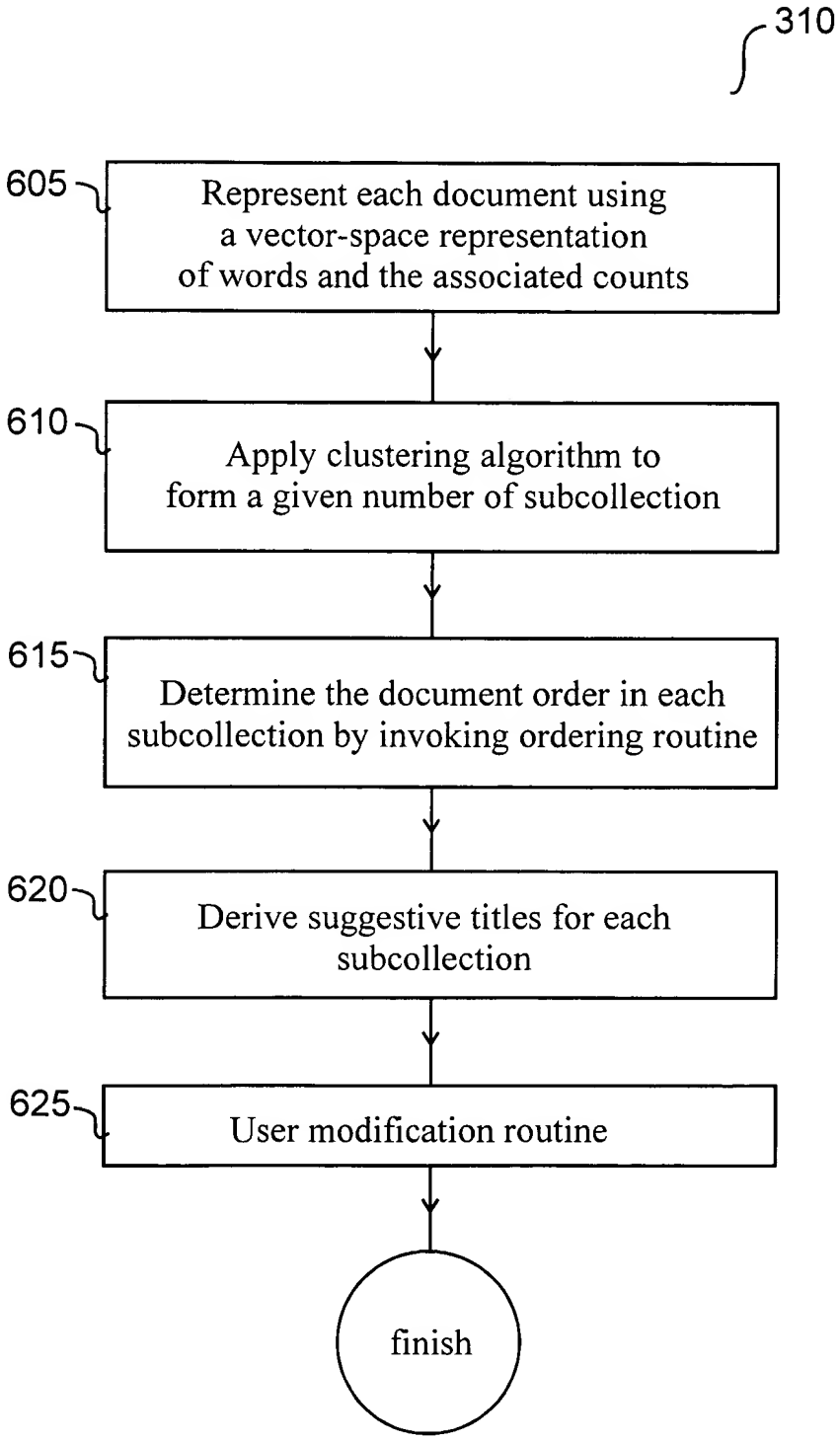

Figure 6

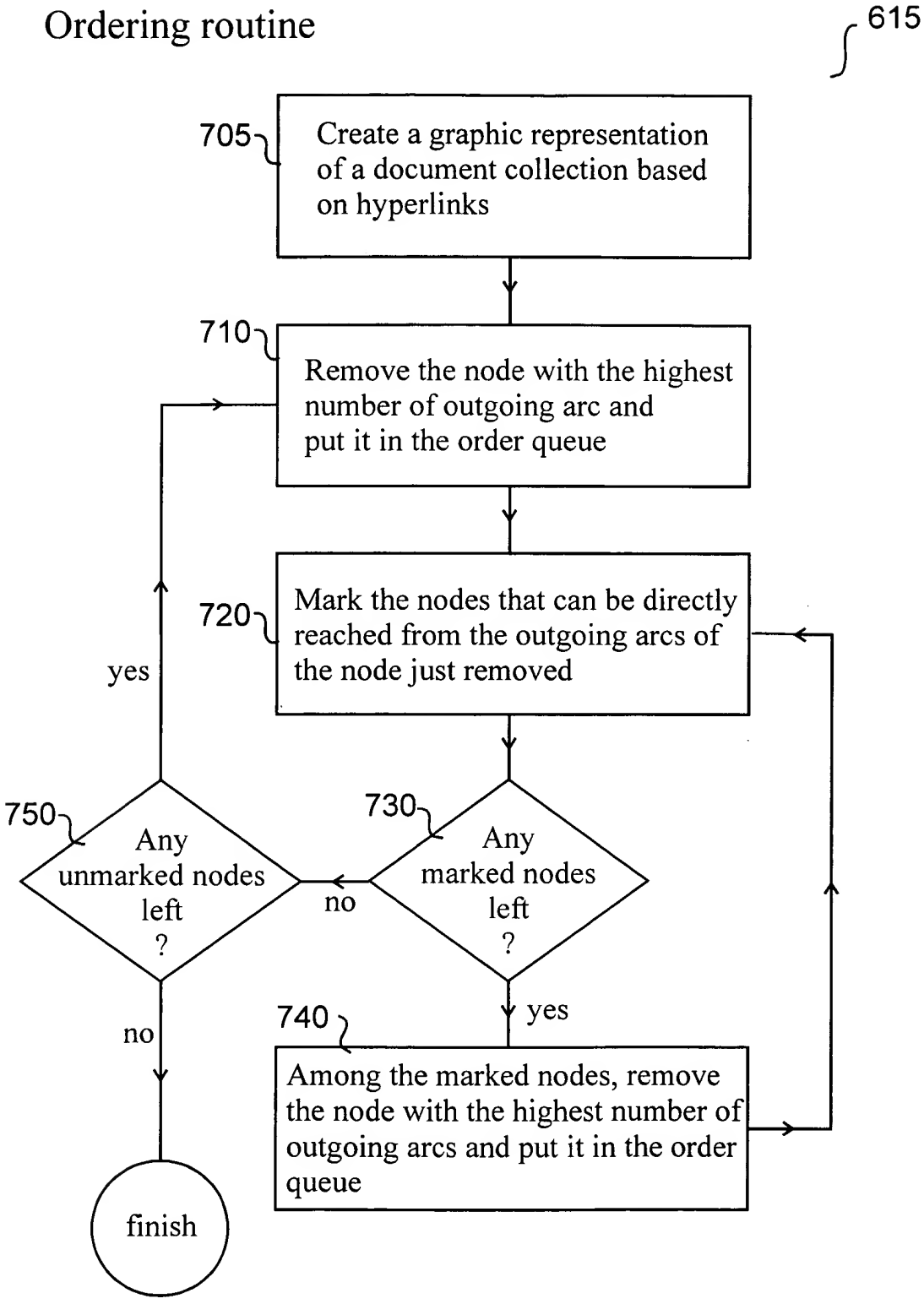
Ordering routine
615
705
Create a graphic representation of a document collection based on hyperlinks
710
Remove the node with the highest number of outgoing arc and put it in the order queue
720
Mark the nodes that can be directly reached from the outgoing arcs of the node just removed
730
Any marked nodes left ?
yes
740
Among the marked nodes, remove the node with the highest number of outgoing arcs and put it in the order queue
no
750
Any unmarked nodes left ?
yes
no
finish

Figure 7

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Integration routine

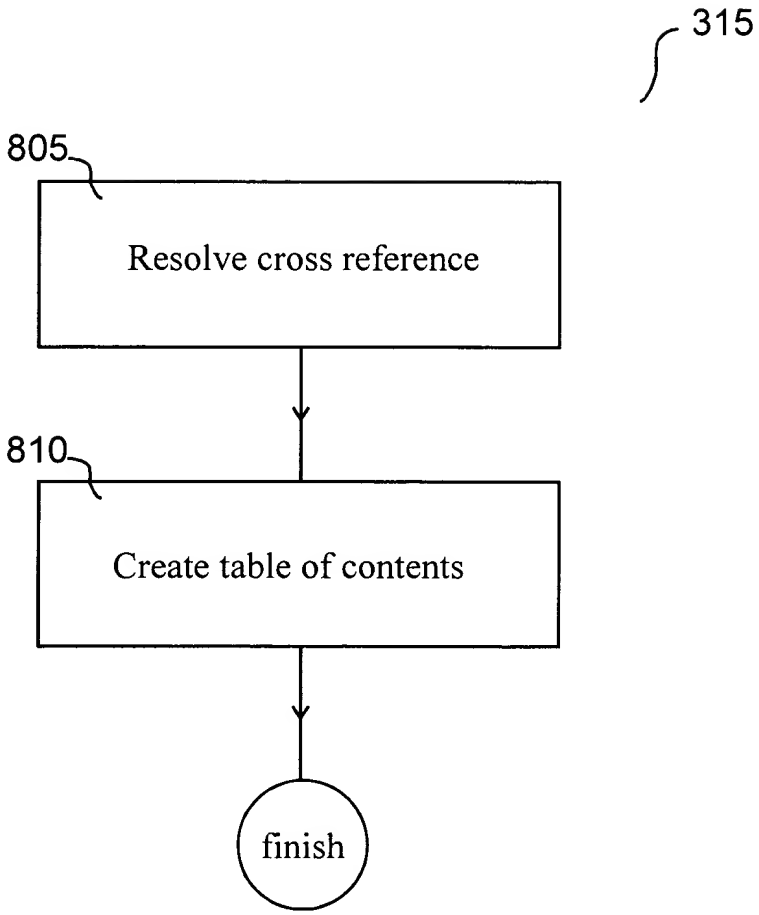

Figure 8

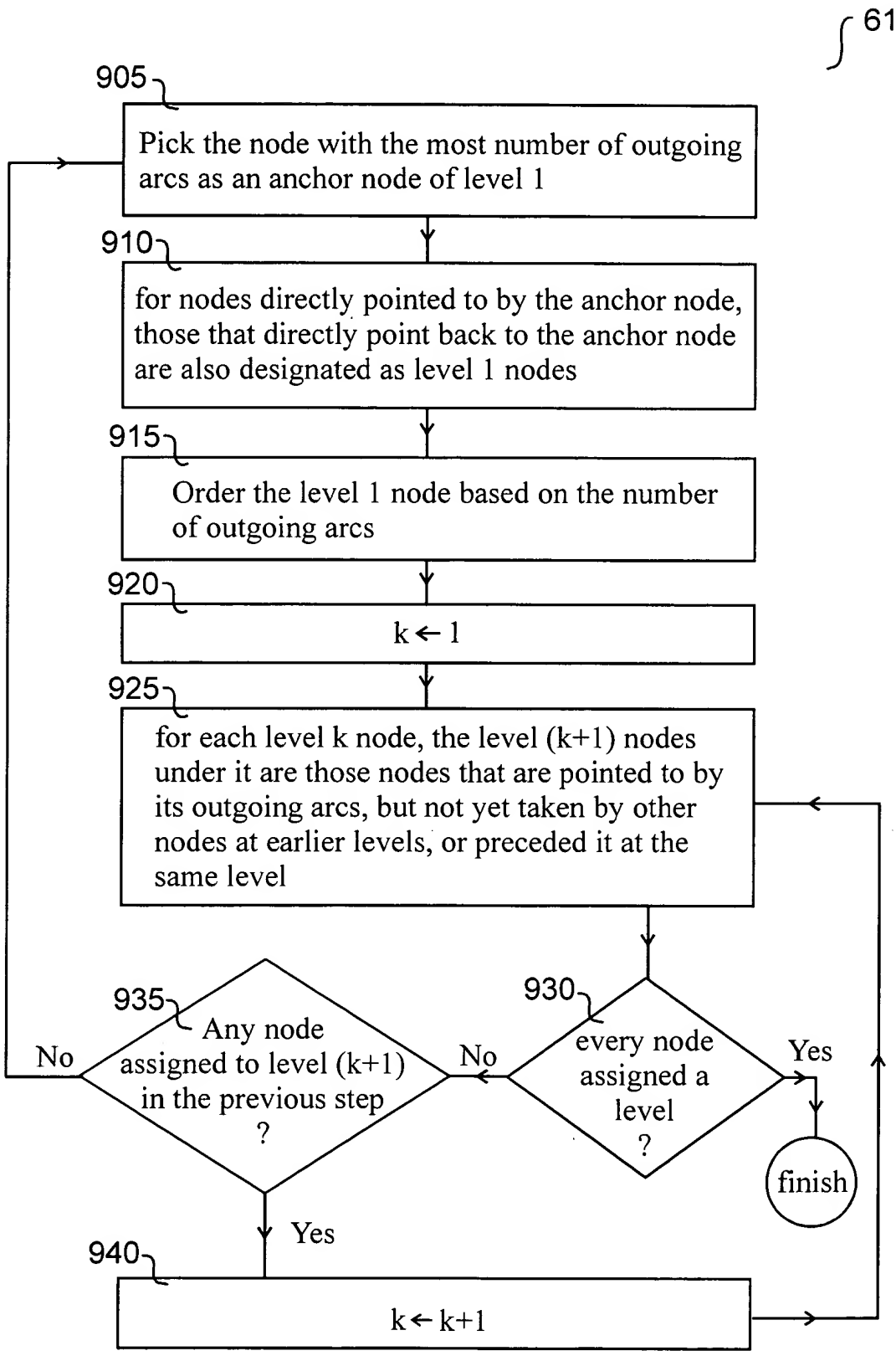
615
905
Pick the node with the most number of outgoing arcs as an anchor node of level 1
910
for nodes directly pointed to by the anchor node, those that directly point back to the anchor node are also designated as level 1 nodes
915
Order the level 1 node based on the number of outgoing arcs
920
k ← 1
925
for each level k node, the level (k+1) nodes under it are those nodes that are pointed to by its outgoing arcs, but not yet taken by other nodes at earlier levels, or preceded it at the same level
930
every node assigned a level ?
Yes
finish
No
935
Any node assigned to level (k+1) in the previous step ?
No
Yes
940
k ← k+1

Figure 9